

This listing of claims will replace all prior versions, and listings, of claims in the application:

The Status of the Claims

1. (Currently amended) A method to provide a handheld pointer-based user interface comprising:

transmitting via a first communication link one or more human-computer interaction (HCI) signals associated with an HCI event from a wireless pointer component to one or more base components that are operatively coupled to a screen of a display, the HCI signals having different codes;

generating at least one of operating information and position information of the wireless pointer component based on the one or more HCI signals; and

transmitting via a second communication link the at least one of operating information and position information from the one or more base components to a processor configured to generate screen information on the screen of the display.

2. (Previously presented) A method as defined in claim 1, wherein transmitting via the first communication link the one or more HCI signals associated with the HCI event from the wireless pointer component to the one or more base components operatively coupled to the screen of the display comprises transmitting at least one of an ultrasonic signal and a radio frequency signal associated with the HCI event from the wireless pointer component to the one or more base components operatively coupled to the screen of the display via the first communication link.

3. (Previously presented) A method as defined in claim 1, wherein transmitting via the first communication link the one or more HCI signals associated with the HCI event from the wireless pointer component to the one or more base components operatively coupled to the screen of the display comprises transmitting the one or more HCI signals associated with at least one of writing, drawing, selecting, and scrolling directly on the screen of the display with the wireless pointer component by a user.

4. (Previously presented) A method as defined in claim 1, wherein transmitting via the first communication link the one or more HCI signals associated with the HCI event from the wireless pointer component to the one or more base components operatively coupled to the screen of the display transmitting the one or more HCI signals associated with the HCI event from the wireless pointer component to the one or more base components operatively coupled to a screen of a display associated with at least one of a desktop computer, a laptop computer, and a handheld computer.

5. (Previously presented) A method as defined in claim 1, wherein transmitting via the first communication link the one or more HCI signals associated with the HCI event from the wireless pointer component to the one or more base components operatively coupled to the screen of the display comprises transmitting the one or more HCI signals associated with the HCI event from the wireless pointer component to the one or more base components in response to at least one of pressing a tip of the wireless pointer component on the screen of the display, and pressing a button of the wireless pointer component.

6. (Previously presented) A method as defined in claim 1, wherein transmitting via a second communication link the at least one of operating information and position information from the one or more base components to a processor configured to generate screen information on the screen of the display comprises transmitting the at least one of operating information and position information from the one or more base components to the processor via one or more communication links operating in accordance with at least one of an 802.11-based communication protocol, a Bluetooth-based communication protocol, and an infrared-based communication protocol.

7. (Original) A method as defined in claim 1 further comprising converting the at least one of operating information and position information from a first format to a second format based on configuration information associated with at least one of the one or more base components and the screen of the display.

8. (Original) A method as defined in claim 1 further comprising generating one or more coordinates of the wireless pointer component relative to the screen of the display based on the at least one of operating information and position information.

9. (Original) A method as defined in claim 1 further comprising operatively coupling the one or more base components on one or more sides of the display to receive the one or more HCI signals associated with the HCI event.

10. (Currently amended) A machine readable medium storing instructions, which when executed, cause a machine to:

transmit via a first communication link one or more human-computer interaction (HCI) signals associated with an HCI event from a wireless pointer component to one or more base components that are operatively coupled to a screen of a display, the HCI signals having different codes;

generate at least one of operating information and position information of the wireless pointer component based on the one or more HCI signals; and

transmit via a second communication link the at least one of operating information and position information from the one or more base components to a processor configured to generate screen information on the screen of the display.

11. (Previously presented) A machine readable medium as defined in claim 10, wherein the instructions cause the machine to transmit via the first communication link the one or more HCI signals associated with the HCI event from the wireless pointer component to the one or more base components operatively coupled to the screen of the display by transmitting via the first communication link at least one of an ultrasonic signal and a radio frequency signal associated with the HCI event from the wireless pointer component to the one or more base components operatively coupled to the screen of the display.

12. (Previously presented) A machine readable medium as defined in claim 10, wherein the instructions, when executed, cause the machine to transmit via the first communication link the one or more HCI signals associated with the HCI event from the wireless pointer component to the one or more base components operatively coupled to the screen of the display by transmitting the one or more HCI signals associated with at least one of writing, drawing, selecting, and scrolling directly on the screen of the display with the wireless pointer component by a user.

13. (Previously presented) A machine readable medium as defined in claim 10, wherein the instructions, when executed, cause the machine to transmit via the first communication link the one or more HCI signals associated with the HCI event from the wireless pointer component to the one or more base components operatively coupled to the screen of the display by transmitting the one or more HCI signals associated with the HCI event from the wireless pointer component to the one or more base components operatively coupled to a screen of a display associated with at least one of a desktop computer, a laptop computer, and a handheld computer.

14. (Previously presented) A machine readable medium as defined in claim 10, wherein the instructions, when executed, cause the machine to transmit via the first communication link the one or more HCI signals associated with the HCI event from the wireless pointer component to the one or more base components operatively coupled to the screen of the display by transmitting the one or more HCI signals associated with the HCI event from the wireless pointer component to the one or more base components in response to at least one of pressing a tip of the wireless pointer component on the screen of the display, and pressing a button of the wireless pointer component.

15. (Original) A machine readable medium as defined in claim 10, wherein the instructions, when executed, cause the machine to convert the at least one of operating information and position information from a first format to a second format based on configuration information associated with at least one of the one or more base components and the screen of the display.

16. (Original) A machine readable medium as defined in claim 10, wherein the instructions, when executed, cause the machine to generate one or more coordinates of the wireless pointer component relative to the screen of the display based on the at least one of operating information and position information.

17. (Currently amended) An apparatus to provide a handheld pointer-based user interface comprising:

a wireless pointer component configured to transmit via a first communication link one or more human-computer interaction (HCI) signals associated with an HCI event, the HCI signals having different codes; and

one or more base components operatively coupled to a screen of a display to receive via a first communication link the one or more HCI signals from the wireless pointer component, the one or more base components being configured to generate at least one of operating information and position information of the wireless pointer component based on the one or more HCI signals, and to transmit via a second communication link the at least one of operating information and position information to a processor configured to generate screen information on the screen of the display.

18. (Original) An apparatus as defined in claim 17, wherein the HCI event comprises at least one of writing, drawing, selecting, and scrolling directly on the screen of the display with the wireless pointer component by a user.

19. (Original) An apparatus as defined in claim 17, wherein the wireless pointer component comprises at least one of a stylus and an electronic pen.

20. (Original) An apparatus as defined in claim 17, wherein the screen information comprises one or more coordinates calculated based on the at least one of operating information and position information of the one or more HCI signals.

21. (Original) An apparatus as defined in claim 17, wherein the processor comprises at least one of a desktop computer, a laptop computer, and a handheld computer.

22. (Original) An apparatus as defined in claim 17, wherein the display comprises at least one of a cathode ray tube (CRT) display, a liquid crystal display (LCD), a light-emitting diode (LED) display, and a plasma display.

23. (Original) An apparatus as defined in claim 17, wherein the second communication link operates in accordance with at least one of a an 802.11-based communication protocol, a Bluetooth-based communication protocol, and an infrared-based communication protocol.

24. (Currently amended) A processor system to provide a handheld pointer-based user interface comprising:

a display having a screen configured to generate at least one of text and graphics;

a processor operatively coupled to the display to generate screen information on the screen of the display; and

a handheld pointer-based user interface device having a wireless pointer component configured to transmit via a first communication link one or more human-computer interaction (HCI) signals associated with an HCI event, and one or more base components operatively coupled to the screen of the display to receive via the first communication link the one or more HCI signals having different codes from the wireless pointer component and configured to generate at least one of operating information and position information of the wireless pointer component based on the one or more HCI signals, and to transmit via a second communication link the at least one of operating information and position information from the one or more base components to the processor.

25. (Original) A processor system as defined in claim 24, wherein the HCI event comprises at least one of writing, drawing, selecting, and scrolling directly on the screen of the display with the wireless pointer component by a user.

26. (Original) A processor system as defined in claim 24, wherein the wireless pointer component comprises at least one of a stylus and an electronic pen.

27. (Original) A processor system as defined in claim 24, wherein the screen information comprises one or more coordinates calculated based on the at least one of operating information and position information of the one or more HCI signals.

28. (Original) A processor system as defined in claim 24, wherein the processor comprises at least one of a desktop computer, a laptop computer, and a handheld computer.

29. (Original) A processor system as defined in claim 24, wherein the display comprises at least one of a cathode ray tube (CRT) display, a liquid crystal display (LCD), a light-emitting diode (LED) display, and a plasma display.

30. (Original) A processor system as defined in claim 24, wherein the second communication link operates in accordance with at least one of a 802.11-based communication protocol, a Bluetooth-based communication protocol, and an infrared-based communication protocol.